MONITOR WELL PRE-SPUD PROPOSAL

1) WELL NAME/NUMBER: ST-4 (Medium)

2) PROPOSED LOCATION: (a) General (on or off-site) Off-site

(attach map) Site Area State Land Section

(b) Sect 32 Twnshp 20S Rng 3E SW ¼ SE ¼ NE ¼ NW ¼

3) WELL PARAMETERS:

(a) Est. total depth 600 (ft) (b) Est. ground elevation @4430 ft

(c) Anticipated stratigraphy:

Alluvium (Santa Fe Group) from 0 ' to TD ' (depth)

_____ from _____ ' to _____ ' (depth)

(d) Anticipated water bearing horizon(s):

Alluvium (Santa Fe Group) at 475 ' (depth)

_____ at _____ ' (depth)

(e) Anticipated static water level 425 ' (depth)

4) WELL PURPOSE/JUSTIFICATION (attach maps and table if needed):

To determine groundwater quality deeper in the alluvial aquifer in relation to ST-4-481. Location is within the Western Boundary Fault (WBF) zone.

5) PROPOSED DRILLING PARAMETERS:

(a) Drilling method(s): (air/foam/mud rotary/auger/etc.)

Mud Rotary from 0 ' to 100 ' (max)

Air-Foam Rotary from 100 ' to TD ' (depth)

Air-foam method: "Quik-Foam" surfactant/water mixture used in conjunction with filtered compress air.

Mud-rotary method: Bentonite mud/water mixture.

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(b) Lithology sampling - collect sample every:

5' intervals Method Grab from 0 ' to TD ' (depth)
Core type 6" Dennison from ' to ' (depth)
2" Christiansen from ' to ' (depth)

(c) Anticipated drilling additive(s): EZ-mud (if needed)

7) PROPOSED WELL COMPLETION DESIGN/MATERIALS

(a) Casing:	Material	Diameter	From	To	Comments
Temporary					
Surface		10"	0	100' max	
Screen (10')	Stainless ++	4"	**		0.02"

Completion Pipe stainless + 4" 0 TD *

Standard material: Blank riser, silt trap, locking cap

N/A Data not available at this time
* for deep completions (450 feet or more)
** to be determined from geophysical logs
\+ Type 304, Schedule 5 stainless steel
Type 304, Schedule 10 stainless steel
++ Regular strength screen, extra strength screen used below 450 feet

(b) Filter pack: Standard 8/20 and 16/40 sand and bentonite plug(s), grout to surface.

8) PROPOSED WELL DEVELOPMENT

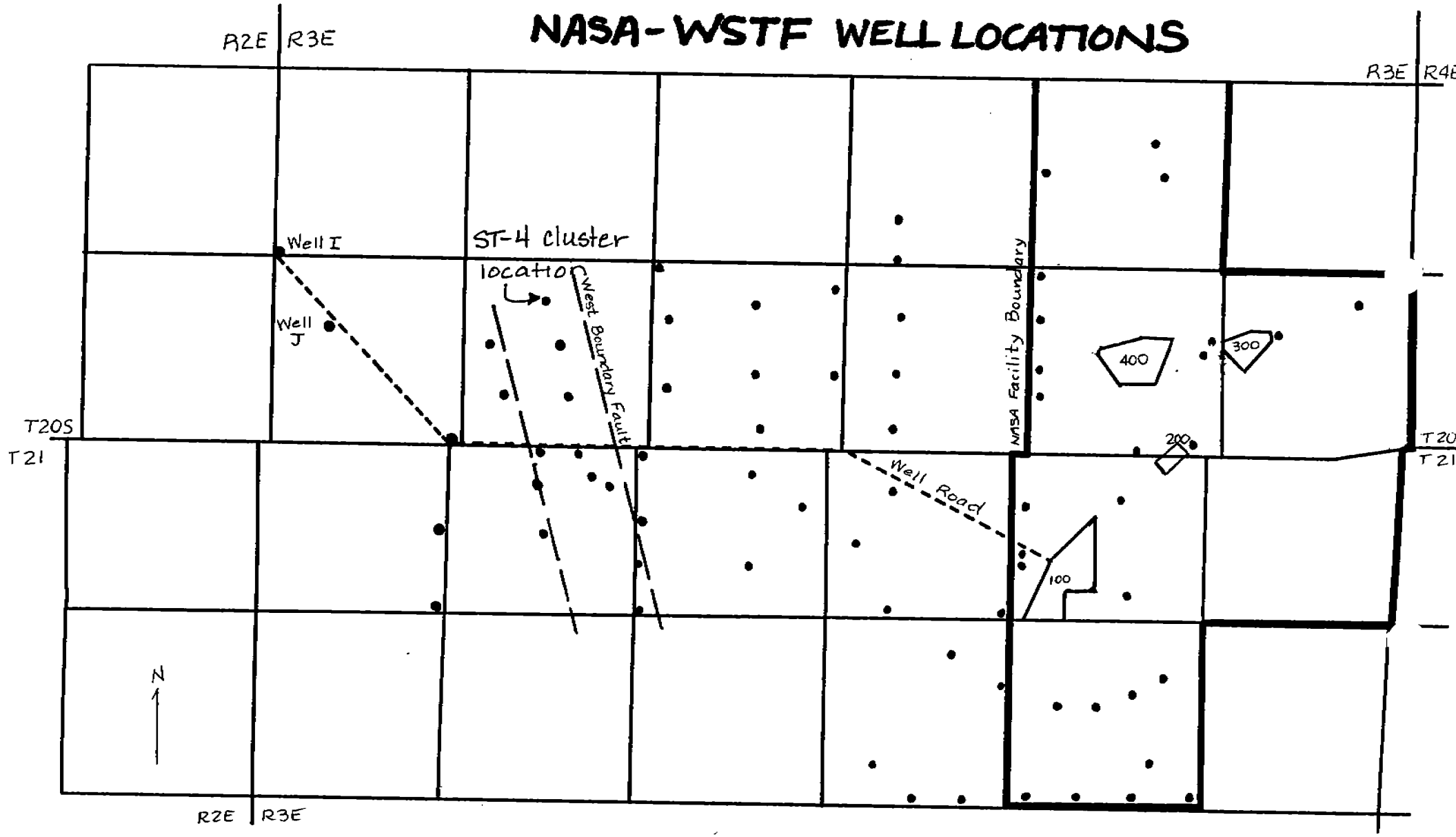
(a) Surge and bail with surge block and bailer.

(b) Pump with submersible pump until parameters stabilize.

9) WELL AUTHORIZATION

(a) Proposed by Geoscience Consultants, Ltd.

(b) Authorized William E. Waldrip (name) NASA (representing) W E Waldrip 5/6/92 (signature)


NASA-WSTF WELL LOCATIONS
R2E
R3E
R3E
R4E
Well I
ST-4 cluster location
Well J
West Boundary Fault
NASA Facility Boundary
400
300
200
100
T20S
T21
T20
T21
Well Road
N
R2E
R3E